



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,216	07/20/2000	PETER FICKEISEN	193413USOPCT	2523
22850	7590	12/16/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			SHOSHO, CALLIE E	
		ART UNIT	PAPER NUMBER	
		1714	DATE MAILED: 12/16/2003	

27

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/582,216	FICKEISEN ET AL.
	Examiner	Art Unit
	Callie E. Shosho	1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 22 August 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 9-14 and 16-61 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 9-14, 16-26, 35-52 and 61 is/are rejected.
 7) Claim(s) 27-34 and 53-60 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) The translation of the foreign language provisional application has been received.
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/22/03 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 9-18, 20-26, 35-45, 47-52, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima et al. (U.S. 4,972,000) in view of CA 2,182,743.

Kawashima et al. disclose an aqueous solvent-free coating composition comprising polymer with insolubles, i.e. gel content, of 20-90% and number average molecular weight of the THF-soluble fractions of 700-20,000 wherein the polymer comprises 0.5-100% alkyl (meth)acrylate such as methyl (meth)acrylate, ethyl (meth)acrylate, and butyl (meth)acrylate. It is further disclosed that the polymer is obtained from additional monomers including 0-99.5% styrene, (meth)acrylamide, and vinyl ester of organic acid and 0.5-88% (meth)acrylic acid. Attention is drawn to Table 2 where polymers obtained from both (meth)acrylate and (meth)acrylic acid monomers are disclosed. The polymer is present in the form of an aqueous dispersion with solids content of 10-65%. The composition also comprises filler and dispersant. It is further disclosed that the composition is used as an adhesive, which clearly encompasses

flooring adhesives, which coats substrates. It is calculated that the composition contains 0.3-95% polymer and 0-87.5% (700/800) filler based on the amount of filler and polymer present in the composition (col.5, lines 4-5, col.6, lines 55-56 and 59-62, col.12, line 30-col.13, line 9, col.13, lines 19-21, col.14, lines 46-55, col.17, lines 20-22, 31-32, and 47-54, col.20, lines 11-14, 37, and 57-65, col.22, lines 6-11 and 40, col.23, line 15, and col.38, line 47). Attention is drawn to col.23, lines 1-14 which disclose that the coating composition "may" contain additives including volatile solvents with boiling point less than 300 °C. Thus, the use of such solvents is optional, and therefore Kawashima et al. meet the limitations of the present claims that require that the composition comprise less than 0.5% of volatile organic compound having boiling point of less than 300 °C.

The difference between Kawashima et al. and the present claimed invention is the requirement in the claims of (a) specific type of filler and (b) glass transition temperature of the polymer.

With respect to difference (a), CA 2,182,743, which is drawn to aqueous coating composition, disclose the use of filler such as chalk which has mean particle diameter of 3-50 µm and/or quartz powder which has mean particle diameter of 3-50 µm in order to produce a composition with good wet and dry grab and good heat distortion resistance (page 1, lines 30-32 and page 4, lines 42-46).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such filler in the composition of Kawashima et al. in order to produce a composition with good wet and dry grab and good heat distortion resistance, and thereby arrive at the claimed invention.

With respect to difference (b), there is no explicit disclosure of the glass transition temperature of the polymer in Kawashima et al. However, it would have been within the skill level of one of ordinary skill in the art to recognize that the glass transition temperature of the polymer is controlled by varying the type and amount of monomer used to obtain the polymer. Further, one of ordinary skill in the art would have recognized that by controlling the glass transition temperature of the polymer, the polymer properties such as water resistance, tackiness, dispersability, etc are controlled.

Thus, it would have been obvious to one of ordinary skill in the art, absent evidence to the contrary, to control the glass transition temperature of the polymer to values, including those presently claimed, in order to produce a polymer with suitable water resistance, dispersability, tackiness, etc., and thereby arrive at the claimed invention.

5. Claims 19 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima et al. (U.S. 4,972,000) in view of CA 2,182,743.

Kawashima et al. disclose an aqueous solvent-free coating composition comprising polymer with insolubles, i.e. gel content, of 20-90% and number average molecular weight of the THF-soluble fractions of 700-20,000 wherein the polymer comprises 0.5-100% alkyl (meth)acrylate such as methyl (meth)acrylate, ethyl (meth)acrylate, and butyl (meth)acrylate. It is further disclosed that the polymer is obtained from additional monomers including 0-99.5% styrene, (meth)acrylamide, and vinyl ester of organic acid and 0.5-88% (meth)acrylic acid. Attention is drawn to Table 2 where polymers obtained from both (meth)acrylate and (meth)acrylic acid monomers are disclosed. The polymer is present in the form of an aqueous

dispersion with solids content of 10-65%. The composition also comprises filler and dispersant. It is further disclosed that the composition is used as an adhesive, which clearly encompasses flooring adhesives, which coats substrates. It is calculated that the composition contains 0.3-95% polymer and 0-87.5% filler based on the amount of filler and polymer present in the composition (col.5, lines 4-5, col.6, lines 55-56 and 59-62, col.12, line 30-col.13, line 9, col.13, lines 19-21, col.14, lines 46-55, col.17, lines 20-22, 31-32, and 47-54, col.20, lines 11-14, 37, and 57-65, col.22, lines 6-11 and 40, col.23, line 15, and col.38, line 47). Attention is drawn to col.23, lines 1-14 which disclose that the coating composition "may" contain additives including volatile solvents with boiling point less than 300 °C. Thus, the use of such solvents is optional, and therefore Kawashima et al. meet the limitations of the present claims that require that the composition comprise less than 0.5% of volatile organic compound having boiling point of less than 300 °C.

The difference between Kawashima et al. and the present claimed invention is the requirement in the claims of (a) specific type of filler and (b) gel content.

With respect to difference (a), CA 2,182,743, which is drawn to aqueous coating composition, disclose the use of filler such as chalk which has mean particle diameter of 3-50 µm and/or quartz powder which has mean particle diameter of 3-50 µm in order to produce a composition with good wet and dry grab and good heat distortion resistance (page 1, lines 30-32 and page 4, lines 42-46).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use such filler in the composition of Kawashima et al. in order to produce a composition

with good wet and dry grab and good heat distortion resistance, and thereby arrive at the claimed invention.

With respect to difference (b), Kawashima et al. disclose gel content of 20-90% while present claims require gel content of more than 5% and less than 20%.

It is apparent, however, that the instantly claimed gel content of “less than 20%” and that taught by Kawashima et al., i.e. 20%, are so close to each other that the fact pattern is similar to the one in In re Woodruff, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or Titanium Metals Corp. of America v. Banner, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a “slight” difference in the ranges the court held that such a difference did not “render the claims patentable” or, alternatively, that “a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties”.

In light of the case law cited above and given that there is only a “slight” difference between the gel content disclosed by Kawashima et al. and the amount disclosed in the present claims, it therefore would have been obvious to one of ordinary skill in the art that the gel content disclosed in the present claims is but an obvious variant of the amounts disclosed in Kawashima et al., and thereby one of ordinary skill in the art would have arrived at the claimed invention.

Allowable Subject Matter

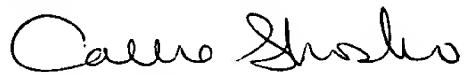
6. Claims 27-34 and 53-60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 27-34 and 53-60 would be allowable in rewritten in independent form given that the "closest" prior art, namely, Kawashima et al. (U.S. 4,972,00), do not disclose a method of adhering floor cover or method of bonding a substrate as required in the claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
12/11/03